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Gly Asn Ser Gln Val Leu Leu Asp Ala Pro Ile Gln Leu Ser Lys Ile
                85                  90                  95

Thr Glu Asn Tyr Asp Cys Gly Thr Lys Leu Pro Gly Leu Leu Lys Arg
            100                 105                 110

Glu Gln Ser Ser Thr Val Asn Ala Lys Lys Leu Glu Lys Ala Glu Ala
        115                 120                 125

Arg Leu Lys Ala Lys Gln Glu Lys Arg Ser Glu Lys Asp Thr Leu Lys
    130                 135                 140

Thr Ser Asn Pro Leu Val Leu Glu Glu Ala Ser Ala Ser Gln Ala Gly
145                 150                 155                 160

Ser Arg Lys Glu Ser Arg Leu Glu Ser Ser Gly Lys Asn Lys Ser Tyr
                165                 170                 175

Asp Val Arg Ile Glu Asn Phe Asp Val Ser Phe Gly Asp Arg Val Leu
            180                 185                 190

Leu Ala Gly Ala Asp Val Asn Leu Ala Trp Gly Arg Arg Tyr Gly Leu
        195                 200                 205

Val Gly Arg Asn Gly Leu Gly Lys Thr Thr Leu Leu Lys Met Leu Ala
    210                 215                 220
```

Thr Arg Ser Leu Arg Val Pro Ala His Ile Ser Leu Leu His Val Glu
225 230 235 240

Gln Glu Val Ala Gly Asp Asp Thr Pro Ala Leu Gln Ser Val Leu Glu
245 250 255

Ser Asp Ser Val Arg Glu Asp Leu Leu Arg Arg Glu Arg Glu Leu Thr
260 265 270

Ala Gln Ile Ala Ala Gly Arg Ala Glu Gly Ser Glu Ala Ala Glu Leu
275 280 285

Ala Glu Ile Tyr Ala Lys Leu Glu Glu Ile Glu Ala Asp Lys Ala Pro
290 295 300

Ala Arg Ala Ser Val Ile Leu Ala Gly Leu Gly Phe Thr Pro Lys Met
305 310 315 320

Gln Gln Gln Pro Thr Arg Glu Phe Ser Gly Gly Trp Arg Met Arg Leu
325 330 335

Ala Leu Ala Arg Ala Leu Phe Ala Arg Pro Asp Leu Leu Leu Leu Asp
340 345 350

Glu Pro Thr Asn Met Leu Asp Val Arg Ala Ile Leu Trp Leu Glu Asn
355 360 365

Tyr Leu Gln Thr Trp Pro Ser Thr Ile Leu Val Val Ser His Asp Arg
370 375 380

Asn Phe Leu Asn Ala Ile Ala Thr Asp Ile Ile His Leu His Ser Gln
385 390 395 400

Arg Leu Asp Gly Tyr Arg Gly Asp Phe Glu Thr Phe Ile Lys Ser Lys
405 410 415

Gln Glu Arg Leu Leu Asn Gln Gln Arg Glu Tyr Glu Ala Gln Gln Gln
420 425 430

Tyr Arg Gln His Ile Gln Val Phe Ile Asp Arg Phe Arg Tyr Asn Ala
435 440 445

Asn Arg Ala Ser Gln Val Gln Ser Lys Leu Lys Met Leu Glu Lys Leu
450 455 460

Pro Glu Leu Lys Pro Val Asp Lys Glu Ser Glu Val Val Met Lys Phe
465 470 475 480

Pro Asp Gly Phe Glu Lys Phe Ser Pro Pro Ile Leu Gln Leu Asp Glu
485 490 495

Val Asp Phe Tyr Tyr Asp Pro Lys His Val Ile Phe Ser Arg Leu Ser
500 505 510

Val Ser Ala Asp Leu Glu Ser Arg Ile Cys Val Val Gly Glu Asn Gly
515 520 525

```
Ala Gly Lys Ser Thr Met Leu Lys Leu Leu Leu Gly Asp Leu Ala Pro
    530                 535                 540

Val Arg Gly Ile Arg His Ala His Arg Asn Leu Lys Ile Gly Tyr Phe
545                 550                 555                 560

Ser Gln His His Val Glu Gln Leu Asp Leu Asn Val Ser Ala Val Glu
                565                 570                 575

Leu Leu Ala Arg Lys Phe Pro Gly Arg Pro Glu Glu Glu Tyr Arg His
            580                 585                 590

Gln Leu Gly Arg Tyr Gly Ile Ser Gly Glu Leu Ala Met Arg Pro Leu
        595                 600                 605

Ala Ser Leu Ser Gly Gly Gln Lys Ser Arg Val Ala Phe Ala Gln Met
    610                 615                 620

Thr Met Pro Cys Pro Asn Phe Tyr Ile Leu Asp Glu Pro Thr Asn His
625                 630                 635                 640

Leu Asp Met Glu Thr Ile Glu Ala Leu Gly Arg Ala Leu Asn Asn Phe
                645                 650                 655

Arg Gly Gly Val Ile Leu Val Ser His Asp Glu Arg Phe Ile Arg Leu
            660                 665                 670

Val Cys Arg Glu Leu Trp Val Cys Glu Gly Gly Gly Val Thr Arg Val
        675                 680                 685

Glu Gly Gly Phe Asp Gln Tyr Arg Ala Leu Leu Gln Glu Gln Phe Arg
    690                 695                 700

Arg Glu Gly Phe Leu
705
```

<210> 9
<211> 664
<212> PRT
<213> Homo sapiens

<400> 9

```
Met Val Ala Phe Val Asn Arg Ala Ser Asn Ala Ile Leu Arg Ala His
  1               5                  10                  15

Leu Pro Pro Gly Pro Ala Arg His Ala His Ser Ile Thr Thr Leu Asn
            20                  25                  30

His Pro Leu Asn Leu Thr Lys Glu Gln Leu Ser Glu Gly Ala Leu Met
        35                  40                  45

Ala Ser Ser Val Asp Val Leu Val Ser Ile Cys Val Val Phe Ala Met
    50                  55                  60

Ser Phe Val Pro Ala Ser Phe Thr Leu Val Leu Ile Glu Glu Arg Val
65                  70                  75                  80
```

```
Thr Arg Ala Lys His Leu Gln Leu Met Gly Gly Leu Ser Pro Thr Leu
                 85                  90                  95

Tyr Trp Leu Gly Asn Phe Leu Trp Asp Met Cys Asn Tyr Leu Val Pro
            100                 105                 110

Ala Cys Ile Val Val Leu Ile Phe Leu Ala Phe Gln Gln Arg Ala Tyr
        115                 120                 125

Val Ala Pro Ala Asn Leu Pro Ala Leu Leu Leu Leu Leu Leu Leu Tyr
    130                 135                 140

Gly Trp Ser Ile Thr Pro Leu Met Tyr Pro Ala Ser Phe Phe Phe Ser
145                 150                 155                 160

Val Pro Ser Thr Ala Tyr Val Val Leu Thr Cys Ile Asn Leu Phe Ile
                165                 170                 175

Gly Ile Asn Gly Ser Met Ala Thr Phe Val Leu Glu Leu Phe Ser Asp
            180                 185                 190

Gln Lys Leu Gln Glu Val Ser Arg Ile Leu Lys Gln Val Phe Leu Ile
        195                 200                 205

Phe Pro His Phe Cys Leu Gly Arg Gly Leu Ile Asp Met Val Arg Asn
    210                 215                 220

Gln Ala Met Ala Asp Ala Phe Glu Arg Leu Gly Asp Arg Gln Phe Gln
225                 230                 235                 240

Ser Pro Leu Arg Trp Glu Val Val Gly Lys Asn Leu Leu Ala Met Val
                245                 250                 255

Ile Gln Gly Pro Leu Phe Leu Leu Phe Thr Leu Leu Leu Gln His Arg
            260                 265                 270

Ser Gln Leu Leu Pro Gln Pro Arg Val Arg Ser Leu Pro Leu Leu Gly
        275                 280                 285

Glu Glu Asp Glu Asp Val Ala Arg Glu Arg Glu Arg Val Val Gln Gly
    290                 295                 300

Ala Thr Gln Gly Asp Val Leu Val Leu Arg Asn Leu Thr Lys Val Tyr
305                 310                 315                 320

Arg Gly Gln Arg Met Pro Ala Val Asp Arg Leu Cys Leu Gly Ile Pro
                325                 330                 335

Pro Gly Glu Cys Phe Gly Leu Leu Gly Val Asn Gly Ala Gly Lys Thr
            340                 345                 350

Ser Thr Phe Arg Met Val Thr Gly Asp Thr Leu Ala Ser Arg Gly Glu
        355                 360                 365

Ala Val Leu Ala Gly His Ser Val Ala Arg Glu Pro Ser Ala Ala His
    370                 375                 380

Leu Ser Met Gly Tyr Cys Pro Gln Ser Asp Ala Ile Phe Glu Leu Leu
```

385 390 395 400

Thr Gly Arg Glu His Leu Glu Leu Leu Ala Arg Leu Arg Gly Val Pro
405 410 415

Glu Ala Gln Val Ala Gln Thr Ala Gly Ser Gly Leu Ala Arg Leu Gly
420 425 430

Leu Ser Trp Tyr Ala Asp Arg Pro Ala Gly Thr Tyr Ser Gly Gly Asn
435 440 445

Lys Arg Lys Leu Ala Thr Ala Leu Ala Leu Val Gly Asp Pro Ala Val
450 455 460

Val Phe Leu Asp Glu Pro Thr Thr Gly Met Asp Pro Ser Ala Arg Arg
465 470 475 480

Phe Leu Trp Asn Ser Leu Leu Ala Val Val Arg Glu Gly Arg Ser Val
485 490 495

Met Leu Thr Ser His Ser Met Glu Glu Cys Glu Ala Leu Cys Ser Arg
500 505 510

Leu Ala Ile Met Val Asn Gly Arg Phe Arg Cys Leu Gly Ser Pro Gln
515 520 525

His Leu Lys Gly Arg Phe Ala Ala Gly His Thr Leu Thr Leu Arg Val
530 535 540

Pro Ala Ala Arg Ser Gln Pro Ala Ala Ala Phe Val Ala Ala Glu Phe
545 550 555 560

Pro Gly Ala Glu Leu Arg Glu Ala His Gly Gly Arg Leu Arg Phe Gln
565 570 575

Leu Pro Pro Gly Gly Arg Cys Ala Leu Ala Arg Val Phe Gly Glu Leu
580 585 590

Ala Val His Gly Ala Glu His Gly Val Glu Asp Phe Ser Val Ser Gln
595 600 605

Thr Met Leu Glu Glu Val Phe Leu Tyr Phe Ser Lys Asp Gln Gly Lys
610 615 620

Asp Glu Asp Thr Glu Glu Gln Lys Glu Ala Gly Val Gly Val Asp Pro
625 630 635 640

Ala Pro Gly Leu Gln His Pro Lys Arg Val Ser Gln Phe Leu Asp Asp
645 650 655

Pro Ser Thr Ala Glu Thr Val Leu
660

<210> 10
<211> 362
<212> PRT
<213> Homo sapiens

<400> 10
Met Glu Arg Val Arg Thr Ala Asn Ala Leu Asn Ser Thr Asn Phe Asp
1 5 10 15

Glu Lys Pro Val Ile Ile Ala Ser Cys Leu Arg Lys Glu Tyr Ala Gly
20 25 30

Lys Arg Lys Gly Cys Phe Ser Lys Arg Lys Asn Lys Ile Ala Thr Arg
35 40 45

Asn Val Ser Phe Cys Val Arg Lys Gly Glu Val Leu Gly Leu Leu Gly
50 55 60

His Asn Gly Ala Gly Lys Ser Thr Ser Ile Lys Val Ile Thr Gly Asp
65 70 75 80

Thr Lys Pro Thr Ala Gly Gln Val Leu Leu Lys Gly Ser Gly Gly Gly
85 90 95

Asp Ala Leu Glu Phe Leu Gly Tyr Cys Pro Gln Glu Asn Ala Leu Trp
100 105 110

Pro Asn Leu Thr Val Arg Gln His Leu Glu Val Tyr Ala Ala Val Lys
115 120 125

Gly Leu Arg Lys Gly Asp Ala Glu Val Ala Ile Thr Arg Leu Val Asp
130 135 140

Ala Leu Lys Leu Gln Asp Gln Leu Lys Ser Pro Val Lys Thr Leu Ser
145 150 155 160

Glu Gly Ile Lys Arg Lys Leu Cys Phe Val Leu Ser Ile Leu Gly Asn
165 170 175

Pro Ser Val Val Leu Leu Asp Glu Pro Ser Thr Gly Met Asp Pro Glu
180 185 190

Gly Gln Gln Gln Met Trp Gln Ala Ile Arg Ala Thr Phe Arg Asn Thr
195 200 205

Glu Arg Gly Ala Leu Leu Thr Thr His Tyr Met Ala Glu Ala Glu Ala
210 215 220

Val Cys Asp Arg Val Ala Ile Met Val Ser Gly Arg Leu Arg Cys Ile
225 230 235 240

Gly Ser Ile Gln His Leu Lys Ser Lys Phe Gly Lys Asp Tyr Leu Leu
245 250 255

Glu Met Lys Val Lys Asn Leu Ala Gln Val Glu Pro Leu His Ala Glu
260 265 270

Ile Leu Arg Leu Phe Pro Gln Ala Ala Arg Gln Glu Arg Tyr Ser Ser
275 280 285

Leu Met Val Tyr Lys Leu Pro Val Glu Asp Val Gln Pro Leu Ala Gln
290 295 300

```
Ala Phe Phe Lys Leu Glu Lys Val Lys Gln Ser Phe Asp Leu Glu Glu
305                 310                 315                 320

Tyr Ser Leu Ser Gln Ser Thr Leu Glu Gln Val Phe Leu Glu Leu Ser
                325                 330                 335

Lys Glu Gln Glu Leu Gly Asp Phe Glu Glu Asp Phe Asp Pro Ser Val
            340                 345                 350

Lys Trp Lys Leu Leu Pro Gln Glu Glu Pro
        355                 360
```

<210> 11
<211> 102
<212> PRT
<213> Homo sapiens

<400> 11

```
Met Gln Thr Ile Lys Asp Asn Gln Ala Lys Lys Leu Ser Gly Gly Gln
  1               5                  10                  15

Lys Arg Lys Leu Ser Leu Gly Ile Ala Val Leu Gly Asn Pro Lys Ile
             20                  25                  30

Leu Leu Leu Asp Glu Pro Thr Ala Gly Met Asp Pro Cys Ser Arg His
         35                  40                  45

Ile Val Trp Asn Leu Leu Lys Tyr Arg Lys Ala Asn Arg Val Thr Val
     50                  55                  60

Phe Ser Thr His Phe Met Asp Glu Ala Asp Ile Leu Ala Gly Glu Ile
 65                  70                  75                  80

Phe Val Leu Phe Ser Lys Ala Glu Ile Met Gly Gln Lys Glu Asp Gly
                 85                  90                  95

Tyr Arg Asp Ala Asn Ser
            100
```

<210> 12
<211> 103
<212> PRT
<213> Homo sapiens

<400> 12

```
Met Lys Glu Pro Thr Gln Val Glu Ala Leu His Thr Glu Ile Leu Lys
  1               5                  10                  15

Leu Phe Pro Gln Ala Ala Trp Gln Glu Arg Tyr Ser Ser Leu Met Ala
             20                  25                  30

Cys Lys Leu Pro Val Glu Asp Val His Pro Leu Ser Gln Ala Phe Phe
         35                  40                  45

Lys Leu Lys Ala Val Lys Gln Thr Phe Asn Leu Glu Glu Tyr Ser Leu
```

```
     50                  55                  60

Ser Gln Ala Thr Leu Glu Gln Val Phe Leu Glu Leu Cys Lys Glu Gln
 65                  70                  75                  80

Ala Leu Gly Asn Val Asp Asp Lys Ile Asp Ile Thr Val Arg Trp Lys
                 85                  90                  95

Leu Leu Pro Arg Glu Asp Ser
            100
```

<210> 13
<211> 91
<212> PRT
<213> Homo sapiens

<400> 13

```
Pro Arg Val Arg Gly Arg Val Gly Glu Lys Thr Thr Glu Gly Tyr Gly
  1               5                  10                  15

Cys Glu Glu Thr Thr Glu Gly Arg Ile Thr Leu Ala Arg Leu Met Tyr
            20                  25                  30

Thr Glu Pro Lys Phe Ile Ile Leu Asp Glu Val Phe Ala Asn Leu Asp
         35                  40                  45

Lys Asn Asn Ala Asp Asn Ile Lys Glu Lys Leu Leu Leu Asp Pro Asn
     50                  55                  60

Leu Thr Ile Ile Met Val Ser His His Leu Asp Ala Lys Asp Arg Lys
 65                  70                  75                  80

Tyr Phe Asp Gln Ile Ile Asp Phe Asn Thr Leu
                 85                  90
```

<210> 14
<211> 8
<212> PRT
<213> Homo sapiens

<400> 14

```
Gly Arg Asn Gly Leu Gly Lys Thr
  1               5
```

<210> 15
<211> 8
<212> PRT
<213> Homo sapiens

<400> 15

```
Gly Glu Asn Gly Ala Gly Lys Ser
  1               5
```

<210> 16

<211> 8
<212> PRT
<213> Homo sapiens

<400> 16
Gly Val Asn Gly Ala Gly Lys Thr
1 5

<210> 17
<211> 285
<212> PRT
<213> Homo sapiens

<400> 17
Ala Gln Val Val Ile Leu Asp Glu Pro Thr Ala Gly Val Asp Pro Ala
1 5 10 15

Ser Arg Arg Gly Ile Trp Glu Leu Leu Leu Lys Tyr Arg Glu Gly Arg
20 25 30

Thr Leu Ile Leu Ser Thr His His Leu Asp Glu Ala Glu Leu Leu Gly
35 40 45

Asp Arg Val Ala Val Val Ala Gly Gly Arg Leu Cys Cys Cys Gly Ser
50 55 60

Pro Leu Phe Leu Arg Arg His Leu Gly Ser Gly Tyr Tyr Leu Thr Leu
65 70 75 80

Val Lys Ala Arg Leu Pro Leu Thr Thr Asn Glu Lys Ala Asp Thr Asp
85 90 95

Met Glu Gly Ser Val Asp Thr Arg Gln Glu Lys Lys Asn Gly Ser Gln
100 105 110

Gly Ser Arg Val Gly Thr Pro Gln Leu Leu Ala Leu Val Gln His Trp
115 120 125

Val Pro Gly Ala Arg Leu Val Glu Glu Leu Pro His Glu Leu Val Leu
130 135 140

Val Leu Pro Tyr Thr Gly Ala His Asp Gly Ser Phe Ala Thr Leu Phe
145 150 155 160

Arg Glu Leu Asp Thr Arg Leu Ala Glu Leu Arg Leu Thr Gly Tyr Gly
165 170 175

Ile Ser Asp Thr Ser Leu Glu Glu Ile Phe Leu Lys Val Val Glu Glu
180 185 190

Cys Ala Ala Asp Thr Asp Met Glu Asp Gly Ser Cys Gly Gln His Leu
195 200 205

Cys Thr Gly Ile Ala Gly Leu Asp Val Thr Leu Arg Leu Lys Met Pro
210 215 220

Pro Gln Glu Thr Ala Leu Glu Asn Gly Glu Pro Ala Gly Ser Ala Pro

225 230 235 240

Glu Thr Asp Gln Gly Ser Gly Pro Asp Ala Val Gly Arg Val Gln Gly
245 250 255

Trp Ala Leu Thr Arg Gln Gln Leu Gln Ala Leu Leu Leu Lys Arg Phe
260 265 270

Leu Leu Ala Arg Arg Ser Arg Arg Gly Leu Phe Ala Gln
275 280 285

<210> 18
<211> 199
<212> PRT
<213> Homo sapiens

<400> 18
Ser Glu Asp Ala Pro Gly Asp Pro Gly Arg Ala Arg Leu Leu Glu Ala
1 5 10 15

Leu Leu Gln Glu Ala Gly Leu Glu Glu Pro Pro Val Gln His Ser Ser
20 25 30

His Arg Phe Ser Ala Pro Glu Val Pro Ala Glu Val Ala Lys Val Leu
35 40 45

Ala Ser Gly Asn Trp Thr Pro Glu Ser Pro Ser Pro Ala Cys Gln Cys
50 55 60

Ser Arg Pro Gly Ala Arg Arg Leu Leu Pro Asp Cys Pro Ala Ala Ala
65 70 75 80

Gly Gly Pro Pro Pro Pro Gln Ala Val Thr Gly Ser Gly Glu Val Val
85 90 95

Gln Asn Leu Thr Gly Arg Asn Leu Ser Asp Phe Leu Val Lys Thr Tyr
100 105 110

Pro Arg Leu Val Arg Gln Gly Leu Lys Thr Lys Lys Trp Val Asn Glu
115 120 125

Val Arg Tyr Gly Gly Phe Ser Leu Gly Gly Arg Asp Pro Gly Leu Pro
130 135 140

Ser Gly Gln Glu Leu Gly Arg Ser Val Glu Glu Leu Trp Ala Leu Leu
145 150 155 160

Ser Pro Leu Pro Gly Gly Ala Leu Asp Arg Val Leu Lys Asn Leu Thr
165 170 175

Ala Trp Ala His Ser Leu Asp Ala Gln Asp Ser Leu Lys Ile Trp Phe
180 185 190

Asn Asn Lys Gly Trp His Ser
195

<210> 19
<211> 8
<212> PRT
<213> Homo sapiens

<400> 19
Gly His Asn Gly Ala Gly Lys Ser
1 5

<210> 20
<211> 15
<212> PRT
<213> Homo sapiens

<400> 20
Leu Ser Gly Gly Gln Lys Arg Lys Leu Ser Leu Gly Ile Ala Val
1 5 10 15

<210> 21
<211> 73
<212> PRT
<213> Homo sapiens

<400> 21
Asn Pro Ser Val Val Leu Leu Asp Glu Leu Phe Thr Gly Met Asp Pro
1 5 10 15

Glu Gly Gln Gln Gln Met Trp Gln Ile Leu Gln Ala Thr Ile Lys Asn
20 25 30

Gln Glu Arg Gly Ala Leu Leu Thr Thr His Tyr Met Ser Glu Ala Lys
35 40 45

Ser Leu Cys Asp Arg Val Ala Ile Met Val Ser Gly Thr Leu Arg Cys
50 55 60

Ile Gly Ser Ile Gln Gln Leu Lys Ser
65 70